BALASHOV, V.V.; BELYAYEV, V.B.; ZAKHAR'YEV, B.N.

Dipole excitations of nuclei in the superfluid model. Zhur. eksp. i teor. fiz. 42 no.5:1365-1370 My '62. (MIRA 15:9)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.
(Dipole moments) (Nuclear models) (Superfluidity)

BALASHOV, V.V.; FETISOV, V.N.

Supermultiple level structure and characteristics of the (γ,d) reaction on light nuclei. Izv. AN SSSR. Ser. fiz. 26 no.9:1188-1189 S '62. (MIRA 15:9)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo gosudarstvennogo univeristeta im. M. Lomonosova.
(Quantum theory) (Nuclear reactions)

BALASHOV, V.V.; BOYARKINA, A.N.

Spectroscopic approach to the description of the interaction between fast nucleons and light nuclei. Izv. AN SSSR. Ser. fiz. 26 no.9:1196-1198 S '62. (MIRA 15:9)
(Nuclear reactions) (Nuclear models)

BALASHOV, V. V.

"Nuclear Reactions at High Energies and the Structure of Light Nuclei"

Report presented at the Conference on Nuclear Reactions produced by light nuclei, Dubna, December 1962.

S/903/62/000/000/029/044
B102/B234

AUTHORS: Balashov, V. V., Shevchenko, V. G., Yudin, N. P.

TITLE: Consideration of residual interaction between the nucleons in a nucleus with the aim of interpreting photonuclear reactions in the region of giant resonance

SOURCE: Yadernyye reaktsii pri malykh i srednikh energiyakh; trudy Vtoroy Vsesoyuznoy konferentsii, iyul' 1960 g. Ed. by A. S. Davydov and others. Moscow, Izd-vo AN SSSR, 1962, 435-440

TEXT: The consequences of ignoring residual nucleon interaction in the Wilkinson model (Physica, 22, 1039, 1956) have already been investigated by Elliott and Flowers (Proc. Roy. Soc., A 242, 57, 1957) for the photodisintegration of O^{16}. Similar calculations were made by the present authors for the Ca^{40} nucleus in dipole approximation when the quanta excite only the states with $J = 1^-$ and $T = 1$. It can be shown that when residual nucleon interactions are taken into account the nuclear excitation energy becomes raised. This makes it possible to explain the position of the

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giant resonance maximum without introducing the concept of an effective nucleon mass. The increase in level excitation energy is mainly determined by the diagonal part of residual interaction (2 - 3 Mev); the off-diagonal part due to displacement of configuration leads to a small additional increase of the dipole transition energy (1 - 1.5 Mev). The shift of states induced by residual interaction opens additional channels of decay of quasi-steady states formed on γ-quantum absorption. The great number of transitions thus arising in the spectra of low-energy nucleons have a statistical character. Hence taking account of residual interactions points to the microscopic nature of a decay via compound nucleus formation. The connection between the channels determined in shell-model calculations may serve as a basis for using a complex potential to interpret giant resonance. Residual interaction plays a particularly important role in the formation of energy spectra of photonuclear reaction products in the region of heavy nuclei where the proton excited levels decay mainly with neutron evaporation. There are 3 figures and 3 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki MGU im. M. V. Lomonosova (Scientific Research Institute of Nuclear Physics of MGU imeni M. V. Lomonosov)

S/903/62/000/000/030/044
B102/B234

AUTHORS: Balashov, V. V., Fetisov, V. N.

TITLE: The role of nucleon associations in deep photodisintegration of light nuclei

SOURCE: Yadernyye reaktsii pri malykh i srednikh energiyakh; trudy Vtoroy Vsesoyuznoy konferentsii, iyul' 1960 g. Ed. by A. S. Davydov and others. Moscow, Izd-vo AN SSSR, 1962, 441-449

TEXT: Deep photodisintegration (i.e. γ,t or γ,α reactions) of light nuclei is investigated with the help of a method described in ZhETF, 37, 1385, 1959 on the basis of Maykov's experiments (Dissertation FIAN 1959) who studied the reaction $C^{12} + \gamma \longrightarrow p + He^3 + He^4 + He^4 - 27.1$ Mev; this reaction has two maxima at $E_\gamma \simeq 45$ Mev and $E_\gamma = 60 - 65$ Mev. Maykov has assumed that this reaction takes place in two stages: $C^{12} + \gamma \longrightarrow p + B^{11*}$, $B^{11*} \longrightarrow Be^8 + H^3$. This possibility is now subjected to a detailed theoretical analysis in which the calculations are carried out for different values of the B^{11} excitation

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energy. It can be shown that the probability of a decay of B^{11} into Be^8+H^3 is greater by a factor of 20 than for a decay into $Li^7+\alpha$. A determination of the probability ratio of $B^{11} \rightarrow Be^8 + H^3$ decays onto different levels $(0^+/2^+)$ of the Be^8 nucleus gives good agreement with the experimentally found level $E^*_{B^{11}} = 19$ Mev. The second maximum however may not be explained, also not by assuming successive emission of p and t. An analysis of the $C^{12}(\gamma pt)2\alpha$ reaction shows that complex particles as α or t are emitted when excited nuclei decay. Such decays may be observed both in the region of giant resonance and at higher energies. In all cases the decay probabilities may be calculated with the shell model. At $E_\gamma = 60 - 70$ Mev a certain mechanism of "quasi-α-particle" absorption of γ-quanta is possible which leads to simultaneous emission of p and t and to "quasi-deuteron" absorption mechanism at higher γ-quantum energies. Finally the great importance of photonuclear reactions for investigating the inner nuclear shells is pointed out. In an appendix the formulas used for determining the decay widths

Card 2/2

The role of nucleon...

are derived bot for $Be^{11*} \rightarrow Be^{8} + H^{3}$ and $B^{11*} \rightarrow Li^{7} + He^{4}$. There are 5 figures and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki, MGU im. M. V. Lomonosova (Scientific Research Institute of Nuclear Physics, MGU imeni M. V. Lomonosov)

Card 3/3

BALASHOV, V. V.

Nature of collective dipole excitations of atomic nuclei. Izv. AN SSSR. Ser. fiz. 16 no.12:1459-1469 D '62. (MIRA 16:1)

1. Fizicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova.

(Photonuclear reactions)
(Dipole moments)

BALASHOV, V.V.; TULINOV, A.F.

Giant resonance of spin wave excitation in atomic nuclei. Zhur. eksp. i teor. fiz. 43 no.2:702-705 Ag '62. (MIRA 16:6)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.
(Protons—Scattering) (Nuclei, Atomic)

BALASHOV, V.V.

On the mechanism of inelastic scattering of γ-quanta on nuclei. Zhur.eksp.i teor.fiz. 43 no.6:2199-2203 D '62. (MIRA 16:1)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

(Gamma rays--Scattering)

BALASHOV, V.V.

An experimental possibility of studying the mechanism of the (t, d) reaction. Zhur. eksp. i teor. fiz. 45 no.3:541-543 S '63. (MIRA 16:10)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

(Nuclear reactions)

BALASHOV, V.V.; FETISOV, V.N.

Theory of photodisintegration of light nuclei with emission of fast deuterons. Zhur. eksp. i teor. fiz. 45 no.3:532-540 S '63. (MIRA 16:10)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.
(Nuclear reactions) (Deuterons)

BALASHOV, V.V.; ROTTER, I.; ZRELOVA, N.N., tekhn. red.

[Relation between shell model and "cluster" model excitations in light nuclei] O sviazi obolochechnykh i "klasternykh" vozbuzhdenii v legkikh iadrakh. Dubna, Ob"edinenniy in-t iadernykh issl., 1964. 10 p. (MIRA 17:4)

YAKHTENFEL'D, P.A., prof.; BAIASHOV, V.V., aspirant

Erroneous concepts in recommendations. Zemledelie 26 no.9: 93-95 S '64. (MIRA 17:11)

1. Volgogradskiy sel'skokhozyaystvennyy institut.

BALASHOV, V.V.; KORENMAN, G.Ya.; MACHARADZE, T.S.

Partial transitions in the photoproduction of charged π-mesons on light nuclei. IAd. fiz. 1 no.4:668-675 Ap '65. (MIRA 18:5)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

BALASHOV, V.V.; BOYARKINA, A.N.; TULINOV, A.F.

Effect of the excited states of an intermediate nucleus on the reactions of cluster substitution. Izv. AN SSSR. Ser. fiz. 29 no.7:1160-1165 Jl '65. (MIRA 18:7)

BALASHOV, V.V ; MAYLING, L.; RAMAZANOVA, L.A.; SHITIKOVA, K.V.; YADROVSKIY, Ye.L.

Characteristics of the photodisintegration of nuclei with unfilled shells. Izv. AN SSSR. Ser. fiz. 29 no.7:1177-1183 Jl '65. (MIRA 18:7)

BALASHOV, N.V.; DOLESHAL, P.; KORENMAN, G.Ya.; KOROTKIKH, V.L.; PETISOV, V.N.

Effect of "shape resonances" on channel coupling in nuclear reactions. IAd. fiz. 2 no.4:643-656 O '65. (MIRA 18:11)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

BALASHOV, V.Ya.

Experimental laboratory drying apparatus for radiation-convection drying. Izv.vys.ucheb.zav.; pishch.tekh. no.2:83-86 '59. (MIRA 12:8)

1. Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti.

(Drying apparatus--Food)

BALASHOV, V.Ye.

Investigating the radiation-convection drying of brewery malt. Izv.vys.ucheb.zav.; pishch.tekh. no.4:130-136 '59. (MIRA 13:2)

1. Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti. Kafedra oborudovaniya pishchevykh predpriyatiy.
(Malt--Drying)

BALASHOV, V. [illegible], Cand Tech Sci -- "Study of the process of radioconvecti[illegible] drying of [illegible] clear malt." Kiev, 1961. (Min of Higher and Sec Spec Ed UkSSR. Kiev Technol Inst of the Food Indus[illegible]) (KL, 8-61, 241)

BALASHOV, V.Ye.

Blood picture of individuals working with mercury and its organic compounds. Vrach.delo no.6:625-627 Je '59. (MIRA 12:12)

1. Kafedra gigiyeny truda (zav. - chlen-korrespondent AMN SSSR, prof. G.Kh. Shakhbazyan) Kiyevskogo meditsinskogo instituta.
(BLOOD) (MERCURY--PHYSIOLOGICAL EFFECT)

BALASHOV, V.Ye.

Hydrothermal conductivity of brewer's malt. Izv. vys. ucheb. zav.; pishch. tekh. no.2:123-128 '60. (MIRA 14:7)

1. Leningradskiy tekhnologicheskiy institut pishchevoy promyshlennosti kafedra oborudovaniya pishchevykh predpriyatiy.
(Malt--Thermal properties)

BALASHOV, V.Ye.

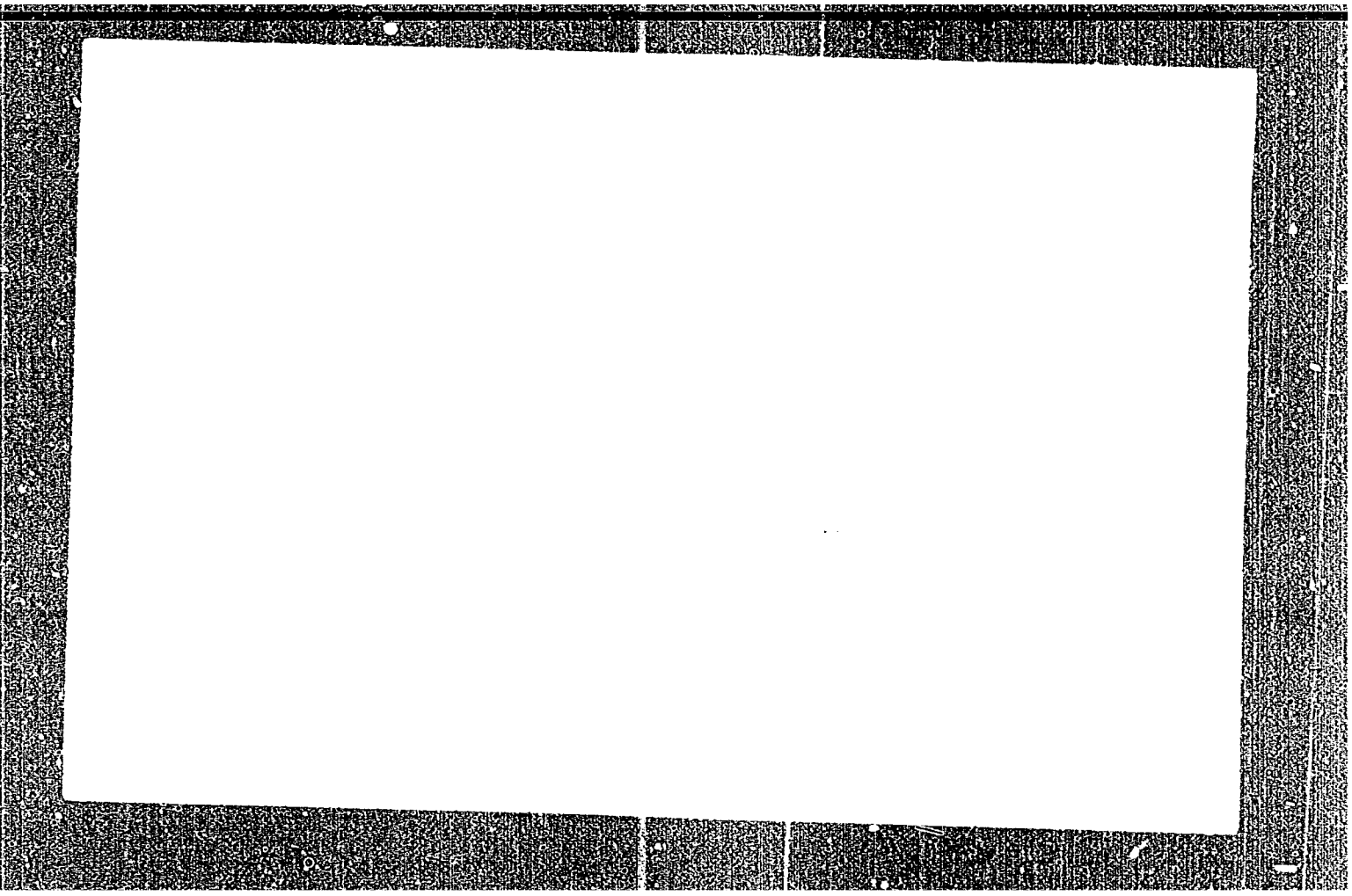
Experimental data on changes in the body following the use of the insecticide and fungicide, mercuran. Vrach. delo no.4:115-119 Ap '61. (MIRA 14:6)

1. Kafedra gigiyeny truda (zav. - chlen-korrespondent AMN SSSR, prof. G.Kh. Shakhbazyan) Kiyevskogo meditsinskogo instituta.
(MERCURAN) (INSECTICIDES)

BALASHOV, V.Ye.

Toxicological characteristics of a new insecticide mercuran.
Gig.i san. 26 no.1:40-44 Ja '61. (MIRA 14:6)

1. Iz kafedry gigiyeny truda Kiyevskogo meditsinskogo instituta.
(INSECTICIDE—TOXICOLOGY)



APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

GRIGOR'YEV, V.K.; BALASHOV, Ye.O.

Hydraulic ejection equipment used for pumping petroleum from tank-vessels. Biul.tekh.-ekon.inform. no.6:71-72 '58. (MIRA 11:8)
(Petroleum--Transportation)

AUTHORS: Balashov, Ye.K.; Ilyukovich, A.M.; Shargorodskiy, A.L. SOV-115-58-4-31/45

TITLE: Some Problems of Calculating Electric Power (O nekotorykh voprosakh ucheta elektroenergii)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 4, pp 74-75 (USSR)

ABSTRACT: The author adduces tables and graphs to show that Soviet ac electric power meters have a large error at loads of less than 5% nominal rating. He advocates an improvement of the loading curve from 5-20% nominal rating by decreasing the error deriving from non-linear relationship between loading current and operating current in the series circuit. The GOST standards relating to ac meters should be revised to bring them into line with international practice, i.e. the minimum load under which the meter's error is regulated should be 5% nominal rating, instead of the present 10%. There are 2 graphs, 1 table and 1 Soviet reference.

1. Electrical energy--Measurement

Card 1/1

BALASHOV, Yu.P.

Using dry graphite lubricant for pantographs. Elek. i tepl. tiaga 2 no.10:28-29 O '58. (MIRA 11:11)

1. Zamestitel' nachal'nika elektrodepo Panki Moskovsko-Ryazanskoy dorogi.

(Pantograph) (Graphite)

ACCESSION NR: AP3005679

AUTHOR: Balashov, Ye. P.; Genkin, V. L.; Sorokin, M. S.

TITLE: Magnetic internal storage of high reliability

SOURCE: IVUZ. Priborostroyeniye, v. 6, no. 4, 1963, 63-70

TOPIC TAGS: storage, memory, internal storage

ABSTRACT: A diode-digit-access internal storage of rectangular-hysteresis-loop ferrite-core type is described. The recording and readout of information are carried out by full currents which substantially reduces the stability requirement of the current source and increases the reliability of the storage. A storage block diagram is presented and discussed. Experiments were carried out with a 32-address, 30-digit storage. P13A and P201A transistors and VT-5 ferrites were used. The storage is eventually intended for a "special-purpose digital computer." Orig. art. has: 4 figures.

ASSN: Leningrad Electrotechnical Institute.

Card 1/2

BALASHOV, Ye.P.; GENKIN, V.L.

Some principles of the plotting of storage units with ferrite cores and total-flux recording. Izv. vys. ucheb. zav.; prib. 6 no.5:20-26 '63. (MIRA 16:11)

1. Leningradskiy elektrotekhnicheskiy institut imeni V.I. Ul'yanova (Lenina). Rekomendovana kafedroy schetno-reshayushchey tekhniki.

ACCESSION NR: AP4037465 S/0146/64/007/002/0065/0073

AUTHOR: Balashov, Ye. P.

TITLE: Possible methods of constructing series accumulators with ferrite cores

SOURCE: IVUZ. Priborostroyeniye, v. 7, no. 2, 1964, 65-73

TOPIC TAGS: accumulator, series accumulator, square loop ferrite accumulator, binary accumulator

ABSTRACT: The advent of contactless magnetic elements (square-loop ferrites) made new ideas possible in constructing series-type accumulators. The accumulating element must have only four stable states. These types of accumulating elements are briefly considered: (a) with filling 1; (b) with advancing 1; (c) with using the choke effect; (d) with compensation of the magnetic flux. It is claimed that the above principles simplify the structural scheme of the series accumulator, cut down the quantity of equipment necessary, enhance reliability, and provide a

Card 1/2

ACCESSION NR: AP4037465

moderate speed of operation. Orig. art. has: 4 figures, 13 formulas, and 3 tables.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Lenina (Leningrad Electrotechnical Institute)

SUBMITTED: 02Mar63 DATE ACQ: 05Jun64 ENCL: 00

SUB CODE: EP NO REF SOV: 005 OTHER: 000

Card 2/2

BALASHOV, Yevgeniy Pavlovich; MAYOROV, S.A., red.

[Full-current magnetic memory device using diode-magnetic core memory cells] Polnotochnoe magnitnoe zapominaiushchee ustroistvo s ferrit-diodnoi iacheikoi pamiati. Leningrad, 1964. 18 p. (MIRA 17:11)

BALASHOV, Yevgeniy Pavlovich; SMOLOV, V.B., red.

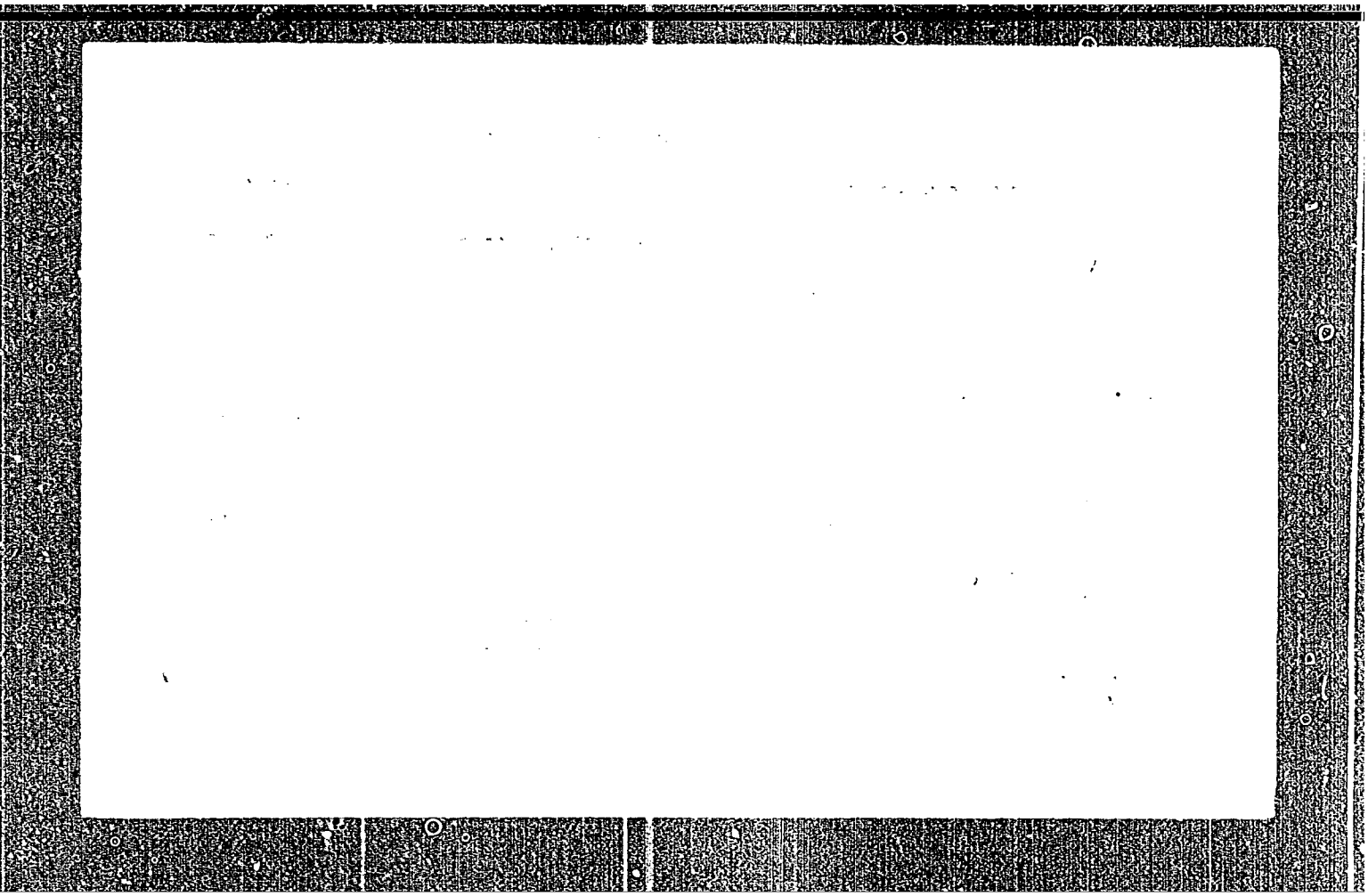
[Design of the magnetic system of memory devices using ferrite cores with rectangular hysteresis loops] Proektirovanie magnitnoi sistemy zapominaiushchikh ustroistv na ferritovykh serdechnikakh s priamougol'noi petlei gisterezisa; stenogramma lektsii. Leningrad, 1963. 39 p.
(MIRA 17:6)

BALASHOV, Ye.P.; SMILOV, V.B., kand. tekhn. nauk, dots., otv. red.

[Design of magnetic-core components and systems of electronic computers; a textbook] Proektirovanie magnitnykh elementov i ustroistv elektronnykh vychislitel'nykh mashin; uchebnoe posobie. Leningrad, Leningr. elektrotekhn. in-t, 1964. 290 p. (MIRA 17:10)

SMOLOV, Vladimir Borisovich; LEBEDEV, Andrey Nikolayevich; ZAPOZHNIKOV, Konstantin Andreyevich; DUBININ, Yakov Ivanovich; SMIRNOV, Nikolay Anisimovich; BODUNOV, Vasiliy Pavlovich; UGRYUMOV, Yevgeniy Pavlovich; YATSENKO, Vladimir Pavlovich. Prinimali uchastiye: BALASHOV, Ye.P.; AFANAS'YEV, Ye.Ye.; SEMENOVA, M.T., red.; GRIGORCHUK, L.A., tekhn. red.

[Electric analog computers] Vychislitel'nye mashiny nepreryvnogo deistviia. [By] V.B.Smolov i dr. Moskva, Vysshaia shkola, 1964. 552 p. (MIRA 17:3)



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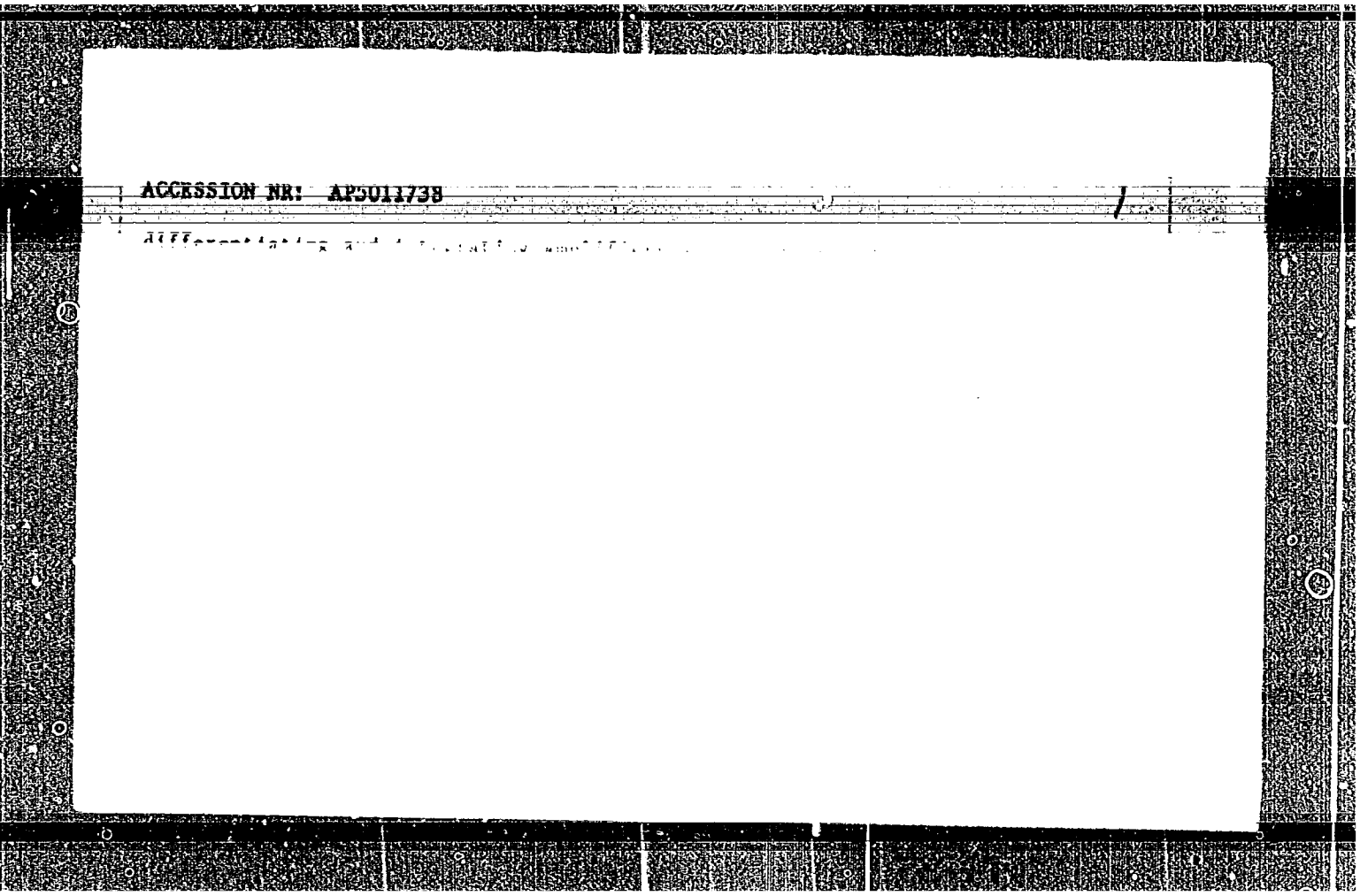


L 00773-65

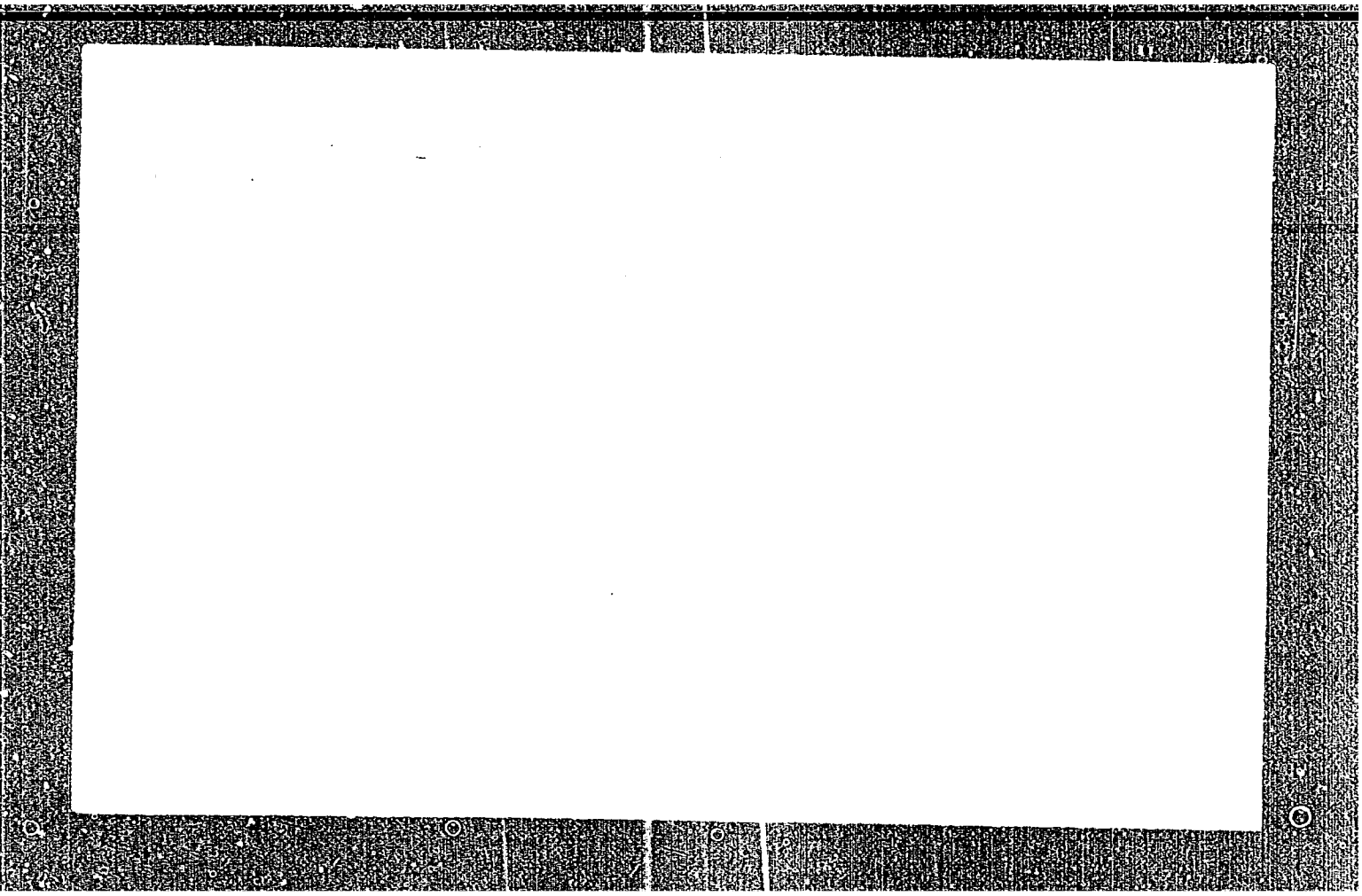
ACCESSION NR: AP5011738

with a schematic representation of the input circuitry of the device. The computer has provided a stable accuracy in the determination of t_c not worse than 0.5% of $(t_c)_{max}$. Weighing 1.5 kg and measuring 600 X 350 X 100 mm, the device [illegible] only [illegible] valves. Orig. art. has: 3 figures and 4 formulas.

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Leningrad Institute of Electrical Engineering)

SUBMITTED: 19Jun64 ENCL: 00 SUB CODE: DP, ES

NO REF SOV: 001 OTHER: 000



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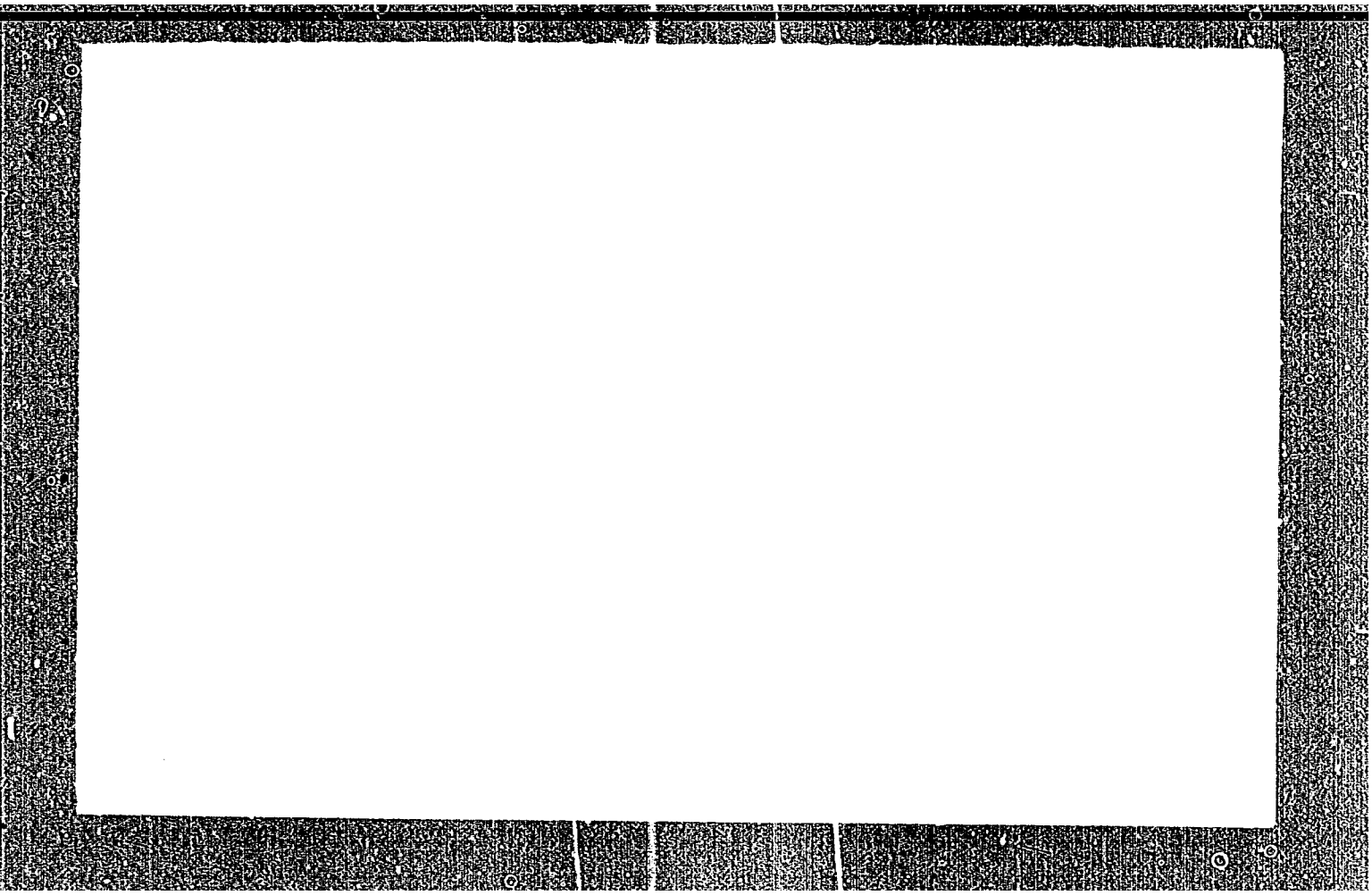

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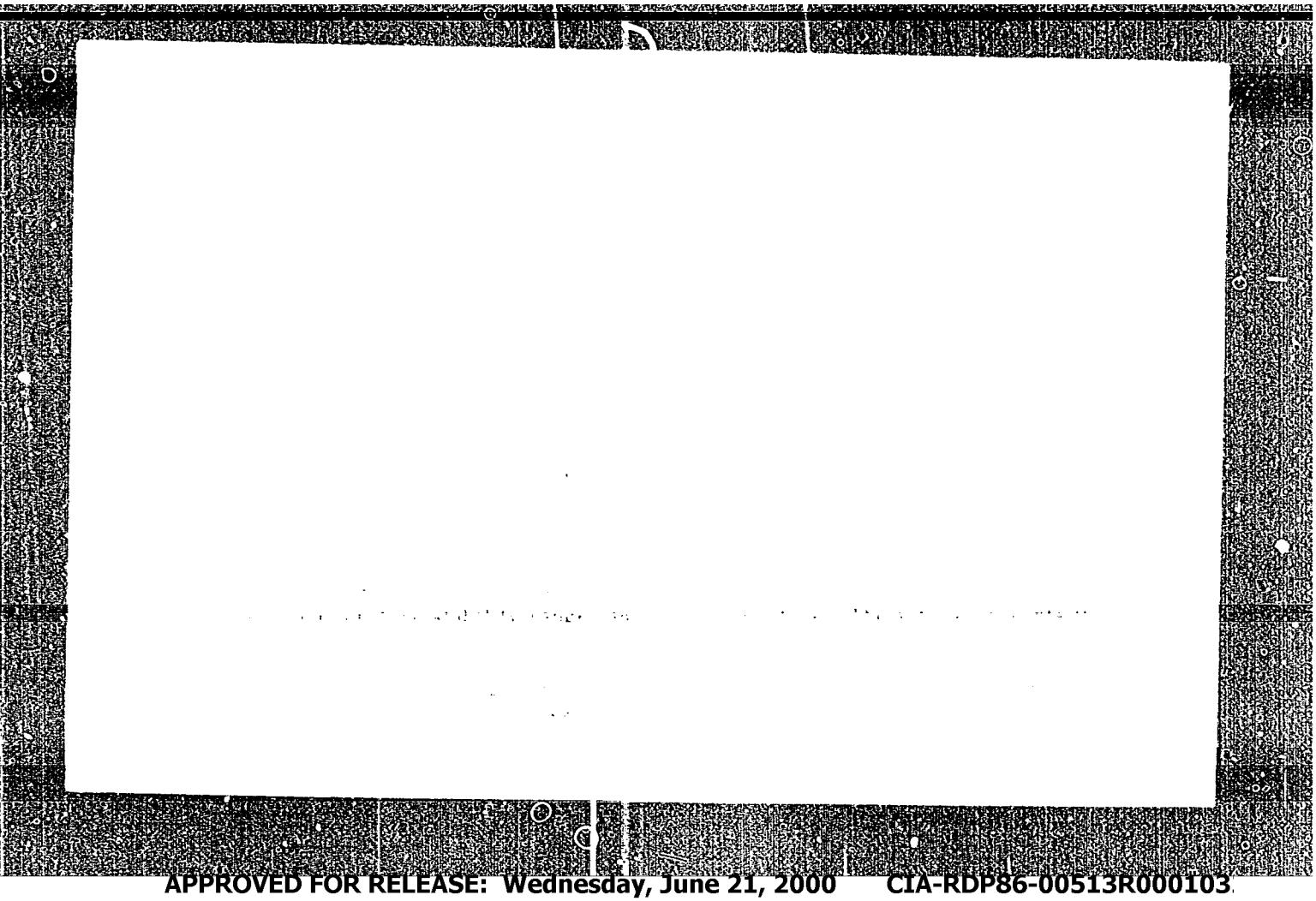
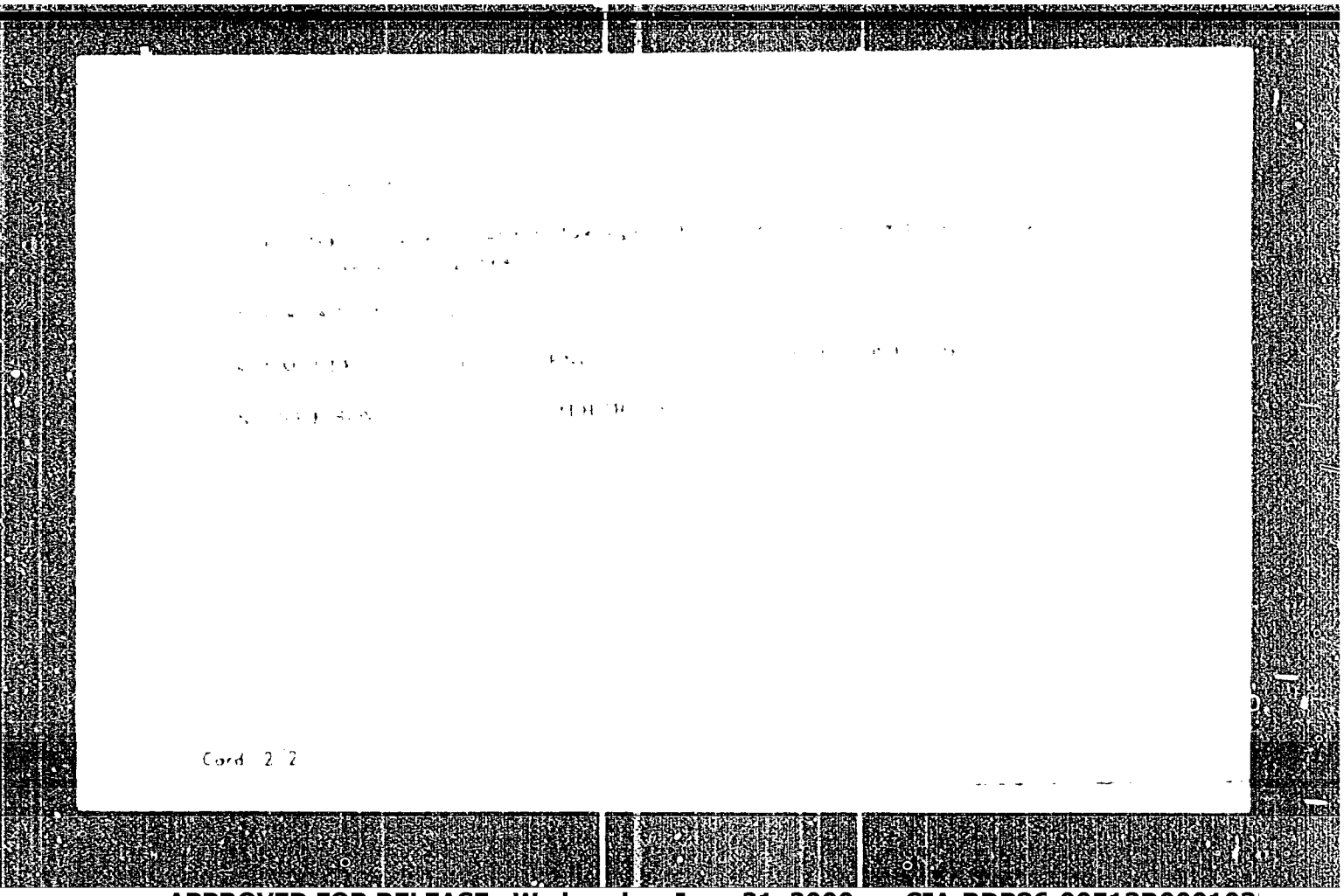
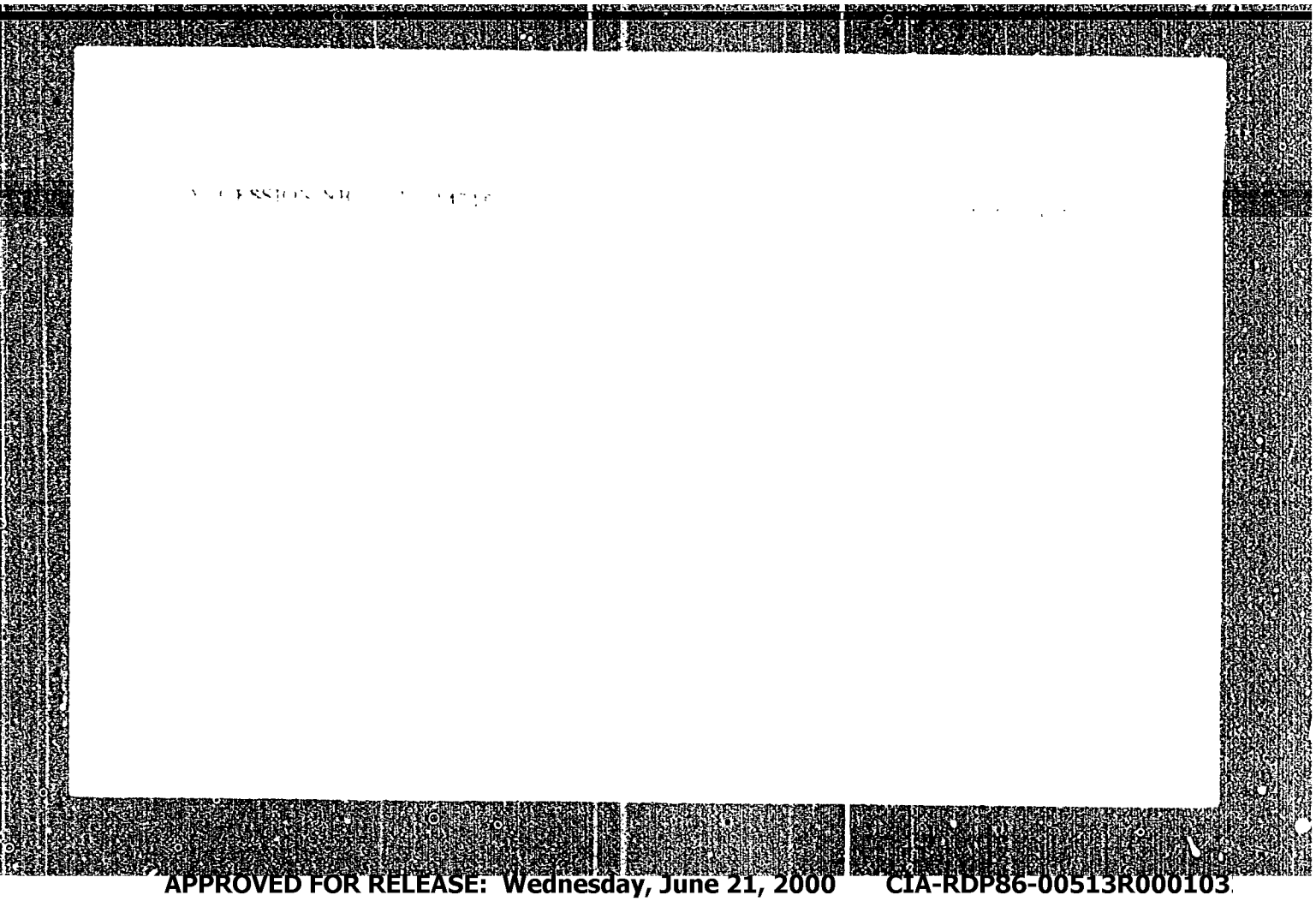
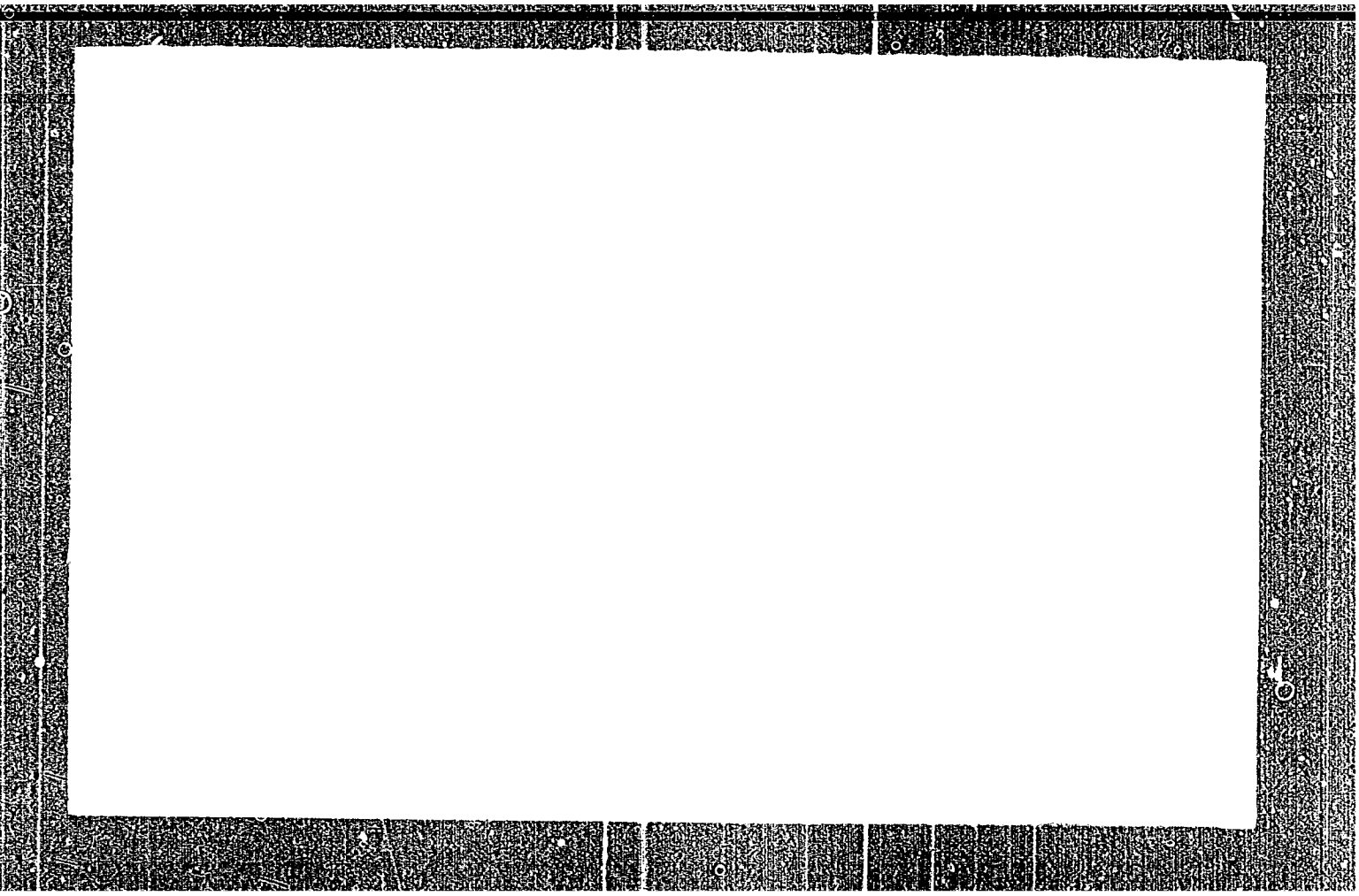




Card 2 2





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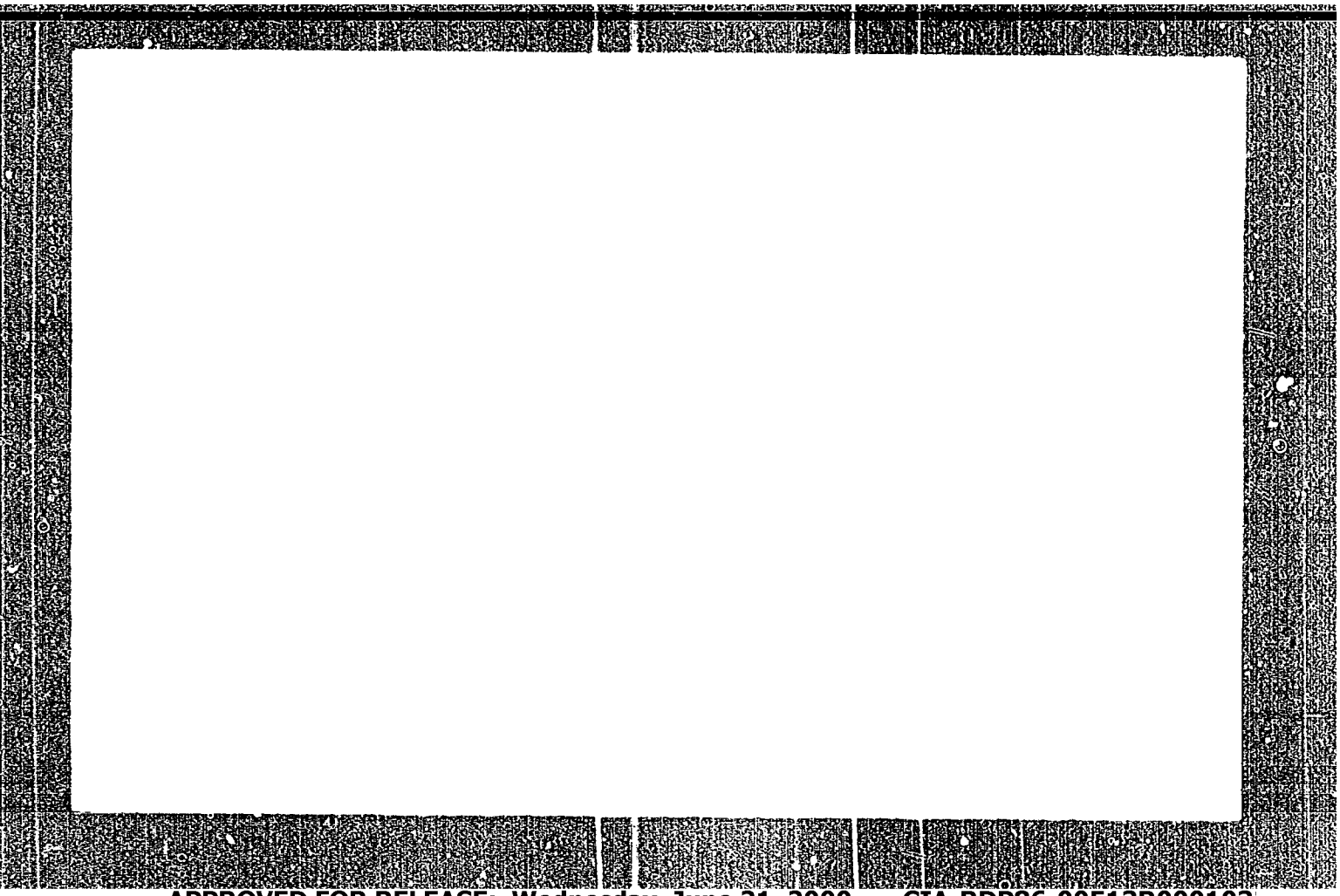


PREOBRAZHENSKIY, Alekseyevich, dots., kand. tekhn. nauk; BALASHOV, Ye.P.; RAYTSIN, D.G.; DROZDOV, N.G., prof., retsenzent; KIFER, I.I., dots., retsenzent; DANILOVA, V.V., red.

[Magnetic materials] Magnitnye materialy. Moskva, Vysshaia shkola, 1965. 234 p. (MIRA 18:10)

1. Moskovskiy institut stali i splavov (for Kifer). 2. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova (for Preobrazhenskiy).

L 05093-67 EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AP6013304 SOURCE CODE: UR/0413/66/000/008/0098/0098

AUTHORS: Balashov, Ye. P.; Gerkin, V. L.

ORG: none

TITLE: An operational storage device. 16 Class 42, No. 180856

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 98

TOPIC TAGS: ferrite core memory, computer memory, computer storage device

ABSTRACT: This Author Certificate presents an operational storage device made up of storage cells. Each of these memory cells contains two ferrite cores with a rectangular hysteresis loop. One of these cores is a storage core and the other is a gating core. These cores are connected by a coupling loop (see Fig. 1). The design increases the reliability and reduces the requirements for control equipment of the device. Reading tie lines are connected to all storage cores and gating cores of each quantity. A compensation tie line passes through all the storage cores of each quantity. A recording tie line passes through all the gating cores of each quantity. A recording discharge tie line passes through the gating cores of one discharge of all quantities.

Card 1/2 UDC: 681.142

L 05093-67

ACC NR: AP6013304

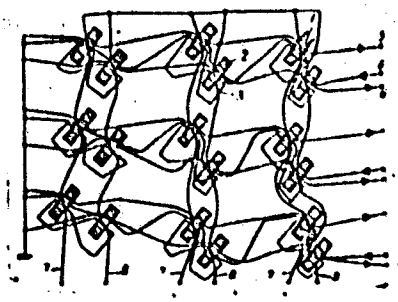


Fig. 1. 1 - storage core; 2 - gating core; 3 - coupling loop; 4 - reading tie line; 5 - compensation tie line; 6 - recording tie line; 7 - discharge winding; 8 - discharge tie line

Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 18Jul 62

Card 2/2

ACC NR: AP7001382 (A,N) SOURCE CODE: UR/0413/66/000/021/0054/0054

INVENTOR: Balashov, Ye. P.; Sidorov, V. M.

ORG: none

TITLE: A magnetic element. Class 21, No. 187835 [announced by Leningrad Electrotechnical Institute im. V. I. Ul'yanov (Leningradskiy elektrotekhnicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 54

TOPIC TAGS: logic element, pulse storage

ABSTRACT: An Author Certificate has been issued for a magnetic element for storing a pulse count. The device contains a transfluxor with several aperatures with a

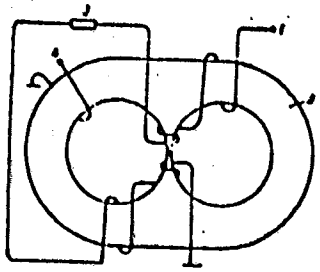


Fig. 1. Magnetic element

1 - Input; 2 - core; 3 - delay line; 4 - output.

Card 1/2 UDC: 681.142.07

ACC NR: AP7001382

priming, a read-write, and an output winding (see Fig. 1). To increase reliability it is equipped with a delay element. The priming winding is mounted on one end cross-connector and a central cross-connector of the transfluxor and, through the delay element, is connected to the read-write winding which is mounted on the central and the second end cross connector. The output winding also lies on this last cross-connector. The cross section of the central cross-connector is not equal to that of the end cross-connectors. Orig. art. has: 1 figure. [JR]

SUB CODE: 09/ SUBM DATE: 22Nov65/ ATD PRESS: 5110

Card 2/2

ACC NR: AP7001380 (A,N) SOURCE CODE: UR/0413/66/000/021/0053/0053

INVENTORS: Balashov, Yo. P.; Smirnov, V. B.

ORG: none

TITLE: Two-hole transfluxor logic element. Class 21, No. 187832

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 53

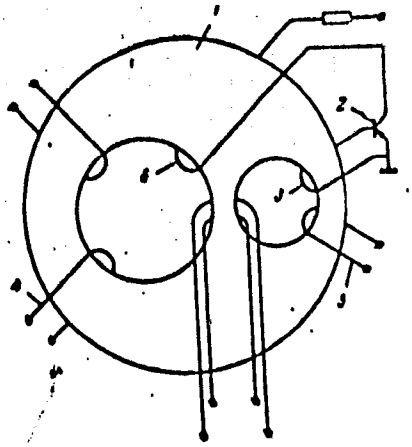
TOPIC TAGS: logic element, magnetic circuit

ABSTRACT: This Author Certificate presents a two-hole transfluxor logic element for executing the functions "AND", "OR", "EXCLUSION", and "PROCEED" spaced in the period of the input quantities, which contains setting, exclusion, and output windings. To increase the load capacity of the element, it contains a transistor with a winding connected to its base, which passes through the small hole of the transfluxor (see Fig. 1). The element also contains a collector winding passing through the large hole and a record winding encompassing the center crosspiece of the transfluxor. One of the exclusion windings passes through the large hole and the other--through the small hole.

Card 1/2 UDC: 681.142.07

ACC NR: AP7001380

Fig. 1. 1 - transfluxor; 2 - transistor; 3 - base winding; 4 and 5 - exclusion windings; 6 - collector winding



Orig. art. has: 1 diagram.

SUB CODE: 09/ SUBM DATE: 30Jul65

Card 2/2

ACC NR: AR7004320 SOURCE CODE: UR/0271/66/000/011/B024/B024

AUTHOR: Balashov, Ye. P.; Genkin, V. L.; Smolov, V. B.; Chernyavskiy, Ye. A.

TITLE: Efficiency and reliability of magnetic internal storages

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 11B189

REF SOURCE: Izv. Leningr. elektrotekhn. in-ta, ch. 3, vyp. 56, 1966, 117-120

TOPIC TAGS: digital computer, computer reliability, computer storage device, computer design, reliability engineering

ABSTRACT: Criteria for evaluating magnetic internal storages of digital computers are defined. Informational efficiency is a product of storage capacity and access rate. Design efficiency is determined by the size, weight, and power consumption per unit efficiency of informational capacity. Information reliability is a ratio of maximum noise to minimum desirable signal in destroyed-information readout. Design reliability is a product of initial operable-condition probability and a probability of operable condition over the work period. The above criteria determine the technical oprability of storages from various aspects. Bibliography of 2 titles.Ye. P. [Translation of abstract]

SUB CODE: 09, 14

Card 1/1 UDC: 681.142.652.2

ARONSON, V.Ye.; BALASHOV, Ya.T.; BERMAN, S.A.; BYZER, B.I.; KALININ, N.A.; MAKHONIN, A.K.; IMASHEV, N.U.; TOKAREV, V.P.

Plans for commercial prospecting for the Zhetybay and Uzen' deposits. Trudy VNIGRI no.218:62-73 '63. (MIRA 17:3)

BALASHOV, Ye.V.; BARASH, B.I.; GRACHEV, G.I.; SOKOLOV, V.Ya.

Geology of the Farab anticline. Trudy VNIGNI no.30:88-96 '61.
(MIRA 14:9)
(Farab region (Turkmenistan)--Petroleum geology)

BALASHOV, Ye.V.

Stratigraphy and basic stages of the geological history of the Chu downwarp. Trudy VNIGNI no.30:205-220 '61. (MIRA 14:9)
(Chu Valley--Geology)

BALASHOV, Yu.A.; TURANSKAYA, N.V.

Specific features of the concentration of rare-earth elements in eudialytes and loparites of the Lovozero massif. Geokhimiia no.2: 121-130 '60. (MIRA 13:6)

1. V.I.Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.
(Lovozero Tundras--Rare earths)
(Eudialyte)
(Loparite)

BALASHOV, Yu.A.; TURANSKAYA, N.V.

Distribution patterns of rare earth elements in rocks of the differentiated complex of the Lovozero alkaline massif in connection with some problems related to the genesis of the complex. Geokhimiia no.8:701-713 '60. (MIRA 14:1)

1. V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.
(Lovozero Tundras--Rare earth metals)

S/075/60/015/004/014/030/XX
B020/B064

AUTHORS: Savvin, S. B., Volynets, M. P., Balashov, Yu. A., and Bagreyev, V. V.

TITLE: Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4, pp. 446 - 451

TEXT: The reagent arsenazo II is an improved analog of the reagent arsenazo (Uranon) (Ref. 6); its synthesis has been described in Ref. 1. Arsenazo II has a number of advantages over arsenazo I and many other reagents suggested for determining thorium; its chief advantage is that Th can be determined in sufficiently acid solutions (0.1 - 0.6 N HCl), and in the presence of rare earths, sulfates, phosphates, etc. In acid solutions arsenazo II reacts with Th, Zr, Ti, U^{IV}, and Fe^{III}, in weakly acid and neutral solutions with Al, U^{VI}, Cr, Cu, ΣTR, etc. Fig. 1 shows the absorption curve of the reagent and its Th compound. The selectivity of

Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II

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B020/B064

determining Th with arsenazo II is also warranted by the proper choice of the acid concentration and the use of masking substances. In 0.2 N HCl, the effect of almost all other elements is reduced to a minimum, and the masking of thorium by phosphates and sulfates is still slight. Large amounts of Zr and Ti have a disturbing effect, small amounts can be masked by adding of phosphates. 2γ Ti, 3γ Zr, 4-8γ Nb, and Ta, 5γ Fe^{III}, 5γ Cr^{III}, 5γ Mo, V, and W, 40γ U^{VI}, 0.5 - 1 mg Al, and 10 - 150 mg K, Na, Ca, Mg, ΣTR, and Fe^{II} do not affect the determination of 10γ Th. The limit is 5 - 10γ Th. The analyzed substance is decomposed by two- or threefold evaporation with hydrofluoric acid, the majority of Zr, Ti, Nb, Ta, Al, Fe, U^{VI} are separated by the formation of soluble fluoride complexes, and thorium is precipitated together with the rare earths and calcium which are its carrier substances. Variants of the separation method are given. In the fluoride method, precipitation is repeated by the action of hydrofluoric acid upon the hydroxide precipitate obtained after the dissolution of the first fluoride precipitate in hydrochloric acid and precipitation in ammonia. In the fluoride-oxalate method, after the decomposition of the

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sample with fluorides and removal of the fluoride ion by evaporation with $HCl+HClO_4$, homogeneous coprecipitation of thorium with the oxalates of rare earths or calcium with acetone dioxalic acid was carried out at the acid concentration suggested by V. I. Kuznetsov and I. V. Nikol'skaya (Ref. 7), and F. V. Zaykovskiy and L. I. Gerkhardt (Ref. 8) for calcium. The oxalates were filtered off, annealed, the oxides dissolved in HCl(1:10), and thorium photometrically determined with arsenazo II. The analysis took one day. The chromatographic separation of the impurities by ion exchange on the Soviet resin KY-2 (KU-2) in the H-form (100 mesh) is described. Table 1 shows the ratio between thorium and some impurities before and after separation, thus proving that all separation methods examined give satisfactory results. The degree of thorium extraction was determined by means of its radioisotope UXI and by measuring the soft β-radiation UXII with which it is in equilibrium. The total thorium losses amount to a maximum of 12-14%. Table 2 shows the results of thorium determinations by the three methods mentioned. They indicate that two methods, i.e., double fluoride precipitation (time of analysis, 6-8 hours) and fluoride-oxalate precipitation (time of analysis, 24 hours) can be recommended. Fig. 1

Photometric Determination of Microquantities of Thorium in Rocks by Means of Arsenazo II

S/075/60/015/004/014/030/XX
B020/B064

shows the absorption curve of a $2.5.10^{-5}$ M arsenazo II solution and a Th-arsenazo II solution of the same concentration. Fig. 2 shows a calibration curve for thorium. There are 2 figures, 2 tables, and 12 references: 10 Soviet and 2 US.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the AS USSR, Moscow)

SUBMITTED: June 1, 1959

Card 4/4

ZLOBIN, B.I.; BALASHOV, Yu.A.

Distribution and relationship of rare earth elements in the alkaline plumasite series: essexite-nepheline syenite. Geokhimiia no.9:784-788 '61. (MIRA 15:2)

1. V.I. Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.
(Rare earth metals)

BALASHOV, Yu.A.; KHITROV, L.M.

Distribution of rare earth metals in waters of the Indian Ocean. Geokhimiia no.9:796-806 '61. (MIRA 15:2)

1. V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.
(Indian Ocean—Rare earth metals)

BALASHOV, Yu.A.; TURANSKAYA, N.V.

Rare earth elements in the eudialyte complex of the Lovozero alkaline massif. Geokhimiia no.12:1087-1098 '61. (MIRA 15:3)

1. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.
(Lovozero Tundras—Rare earth metals)

BALASHOV, Yu.A.

Evolution of the composition and content of rare earth elements in intrusive phases of the Lovozero alkali massif (Kola Peninsula). Geokhimiia no.3:207-219 '62. (MIRA 15:4)

1. Vernadsky Institute of Geochemistry and Analytical Chemistry Academy of Sciences, U.S.S.R., Moscow.
(Lovozero Tundras--Rare earth metals)

BALASHOV, Yu.A.; TURANSKAYA, N.V.

Rare earth elements in peridotite of the Polar Urals. Geokhimiia no.4:377-378 '62. (MIRA 16:7)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva.
(Ural Mountains—Rare earth metals)

BALASHOV, YU. A.

Dissertation defended for the degree of Candidate of Geologo-Mineralogical Sciences at the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy in 1962:

"Regularities in the Distribution of Rare-Earth Elements in Alkaline Rocks."

Vest. Akad: Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

BALASHOV, Yu.A.

Characteristics of the distribution of crustal rare earth elements. Geokhimiia no.2:99-114 F '63. (MIRA 16:9)

1. Vernadsky Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, U.S.S.R., Moscow.

Yu.A. BALASHOV (USSR)

"Separation of the rare-earth elements in magmatic process."

Report presented at the Conference on Chemistry of the Earth's Crust, Moscow, 14-19 Mar 63.

DALASHOV, Yu.A.; DORFMAN, M.D.; TURANSKAYA, N.V.

Separation of cerium from rare-earth elements in the weathering of eudialite. Trudy Min.muz. no.16:205-208 '65.

(MIRA 18:8)

ACC NR: AP6021249 SOURCE CODE: UR/0121/66/000/003/0023/0025

AUTHOR: Balashov, Yu. A.

ORG: None

TITLE: Electrochemical diamond grinding

SOURCE: Stanki i instrument, no. 3, 1966, 23-2

TOPIC TAGS: electrolyte, diamond, grinding, electrochemistry

ABSTRACT: The author discusses electrochemical grinding of hard alloys consisting of tungsten, titanium, tantalum or vanadium carbides and a cobalt binder. There are two possible reactions which may be involved in this process: anode dissolution of the cobalt and anodic oxidation of the metallic bid[illegible]. A diamond grinding wheel with an electrically conductive binder may be used as the cathode to remove reaction products and restore the electrolyte in the operating zone as well as to provide the necessary clearance between the wheel and workpiece. Experimental data show that this method for electrochemical grinding of hard alloys gives high productivity and excellent surface finish with low tool wear. The basic process responsible for removal of material from the workpiece is electrochemical interaction with the electrolyte. The electrolytes used for this type of finishing should be highly conductive and resistant to corrosion and should also be capable of dissolving the products of electrolysis. Operat-

 UDC: 621.9.025.7:621.9.041

ACC NR: AP6021249

ing conditions have a considerable effect on the process of electrochemical grinding. Potential of up to 30 v are used at a current density of up to 100 a/cm^2 for finishing hard alloys and up to 200-300 a/cm^2 for finishing steel. Recommended mechanical conditions are 25 m/sec wheel speed, 6 m/min or less workpiece feed and grinding depth of 1 mm or less. The optimum characteristics for diamond wheels with electrically conductive binder are A8-A12 grain size and 50-100% concentration. The approximate cost ratio of electrochemical to mechanical grinding of hard alloys is 1:4. The efficiency of electrochemical grinding increases with the area to be machined or the amount of metal which must be removed. Orig. art. has: 4 figures, 3 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 006/ OTH REF: 002

Card 2/2 egl

GRACHEV, G.I. [deceased]; BALASHOV, Ye.V.; BARASH, V.I.; KLESHCHEV, A.A.; RASKIN, M.M.

Salt tectonics of the southeastern part of the Kara Kum Platform. Sov.geol. 5 no.12:122-127 D '62. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Kara Kum—Salt domes)

BALASHOV, Yu.G. and BARIT, I.Ya.

(Lebedev Physical Inst. Acad. Sci. USSR)

"Interaction of Low Energy Deuterons with Deuterium and Tritium,"

paper submitted at the All-Union Conf. on Nuclear Reactions in Medium and Low Energy Physics, Moscow, 19-27 Nov 57.

[illegible] [illegible], [illegible] tekhn. nauk; [illegible], [illegible] [illegible];
[illegible], G.H., inzh.; [illegible], [illegible]

[illegible] of the perform[illegible] of [illegible] elem[illegible] with
[illegible] [illegible]-shaped lateral cr[illegible] section in metal [illegible]. Sbor.
trud. LIIZHT no. 228:33-5[illegible] [illegible] (MIRA [illegible])

[illegible]ILOVA, K.Z., kand. tekhn. nauk; [illegible]ASHOV, Yu.K., inzh.

Investigation of the performance of angular supporting elements of the metal spans of railroad bridges. Sbor. trud. LIIZHT no. 228:59-72 '64. (MIRA 18:12)

BALASHOV, Yu.V., inzh.

Calculation of the heating of the components of heat and power generating equipment. Teploenergetika 12 no.8:91-93 Ag '65.
(MIRA 18:9)

1. Vostochnyy filial Vsesoyuznogo nauchno-issledovatel'skogo teplotekhnicheskogo instituta imeni Dzerzhinskogo.

USSR/Biology - Parasitology

Card 1/1 : Pub. 22 - 41/41

Authors : Balashov, Yu. S.

Title : Characteristics of the daily dropping-cycle of blood-sucking female Ixodes persulcatus from cows

Periodical : Dok. AN SSSR 98/2, 317-319, Sep 11, 1954

Abstract : Physiological data on the characteristics of the daily dropping-cycle of blood-sucking parasites Ixodes persulcatus (females) thriving on domestic animals (cows) are presented. Three references: 2-USSR and 1-USA (1915-1945). Tables.

Institution : Acad. of Sc. USSR, Institute of Zoology

Presented by : Academician E. N. Pavlovskiy, May 19, 1954

BALASHOV, Yu. S.

Disturbance of the cold and warm torpor temperature limits in the house fly under the influence of temperature changes of the surrounding atmosphere. Zool.zhur. 34 no.2:351-358 Mr-Ap '55. (MLRA 8:6)

1. Kafedra zoologii besposvonochnykh Leningradskogo gosudarstvennogo universiteta.

(Flies)

BALASHOV, Yu.S.

Changes in the weight of the cattle tick Ixodes ricinus during feeding. Zool.zhur. 35 no.1:29-31 Ja '56. (MLRA 9:5)

1. Zoologicheskiy institut AN SSSR.
(Cattle tick)

BALASHOV, Yu.S.

Nutrition and spermatogenesis in ixodidae ticks. Dokl. AN SSSR 110 no.6:1133-1136 O '56. (MLRA 10:2)

1. Zoologicheskiy institut Akademii nauk SSSR. Predstavleno akademikom Ye.N. Pavlovskim.
(Ticks)

BAKHVALOV, Yu. S., Master Biolog Sci— (diss) "The feeding characteristics of Ixodes ticks." Leningrad, 1957, 19 pp, (Zoological Inst of the AS USSR), 150 copies (KL, No 40, 1957, p. 91)

BALASHOV, Yu.S.

Histological characteristics of digestion in ixodid and argasid ticks. Paras. sbor. 17:137-167 '57. (MIRA 11:3)

1. Zoologicheskiy institut AN SSSR.
(Ticks) (Digestive organs--Arachnida)

BALASHOV, Yu. S.

USSR/Zooparasitology - Acarina and Insect-Vectors of Disease Pathogens. G-4

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10101

Author : Balashov, Yu.S.
Inst : -
Title : Gonotropic Relationships in Ixodic Ticks (Acarina, Ixodidae).

Orig Pub : Entomol. obozrenie, 1957, 36, No 2, 285-299

Abstract : On sample of Ixodes ricinus, Haemaphysalis punctat, Dermacentor pictus, Rhipicephalus turanicus, and Hyalomma plumbeum it was shown that females not impregnated on the 3-4 day markedly slow down or cease bloodsucking. Impregnated females during this period rapidly increase in weight and fall off in one or two days; at this time the quantity of sucked blood exceeds the weight of the fasting tick 100 times. When males are planted feeding usually ends on the 3-4 day. Males of I. ricinus are capable of impregnation

Card 1/2

Zoologicheskiy institut akademii nauk SSSR, Leningrad.

Abs Jour : Ref Zhur - Biol., No 3, 1958, 10101

without prior feeding, the rest of the species only when they are sated. Hungry females of I. ricinus mated and then normally became satiated. The other species did not mate before feeding (with satiated males) and fed sparingly. Beginning in the initial hours of bloodsucking an impregnated female begins rapidly to grow its ovaries and lengthen its oviducts; in non-impregnated females these processes are considerably slowed. Oviparing of impregnated females begins when they reach a minimum weight determined for each individual species; the quantity and viability of eggs under optimum conditions depends on the quantity of sucked blood. Females who did not suck in enough can repeatedly attach themselves and end feeding normally. Thus gonotropic harmony exists in normal nutrition; in partial nutrition it is disturbed.

USSR/Zooparasitology - Mites and Insects as Disease Vectors. G-3

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43437

Author : Balashov, Yu.S.
Inst : -
Title : Adaptation for Taking Large Quantities of Blood By Ixodic Ticks.

Orig Pub : Zool. zh., 1957, 36, No 6, 870-873.

Abstract : A study was conducted of all development stages in ticks Ixodes persulcatus, I. ricinus, Hyalomma asiaticum, and Dermacentor pictus. The chitin of these ticks possesses the ability, rare in arthropoda, of growing during the blood-sucking period, insuring by this ability the capacity to straighten out various striations while absorbing relatively enormous quantities of blood. Only the soft chitin of the alloscotum grows at the expense of thickening exo- and endocuticle. By the end of the blood-sucking period, 12-23 hours before dropping off, the cuticle

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Abs Jour : Ref Zhur - Biol., No 10, 1958, 43437

thickens 2-3 fold. Then a period of cutiele stretching begins at the expense of straightening out the folds of epicutiele and stretching of the exo- and endocuticle. When the tick falls off the cuticle continues to thicken at the expense of exocuticle, while the thickness of endocuticle diminishes. No growth of cuticle occurs in male ixodic ticks, in which the increase in body size at blood-sucking is manifested by strainghtening out folds of the soft chitin located between the spinal thorax and ventral thoraces and coxas. During blood-sucking there is a marked change in the structure of the tick intestinal walls. The small cylindrical cells in the intestines of a hungry tick, between which small non-differentiated cells are located, are markedly hypertrophied from the moment of blood-sucking and are transformed into glandular cells, the distal ends of which may be thrust into the intestinal lumen. The growth of intestines proceeds

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43437

due to increase in cell size as well as chiefly due to their rapid reproduction, which at first occurs mitotically throughout the entire intestinal surface; later the center of reproduction is localized in cellular rods resembling the crypts of insects' intestines. 12-24 hours before the tick falls off the crypts are converted into longitudinal folds; when these straighten out, also due to stretching of the cells, an inordinately powerful stretching of the intestinal tract occurs at the last, most energetic, period of blood-sucking.

BALASHOV, Yu. S.

AUTHOR: None Given 30-58-4-34/44

TITLE: Dissertations (Dissertatsii).
Branch of Biological Sciences (Otdeleniye biologicheskikh nauk).
July-December 1957 (Iyul' - Dekabr' 1957)

PERIODICAL: Vestnik Akademii Nauk SSSR, 1958, Nr 4, pp. 119-120 (USSR)

ABSTRACT: 1) At the Botanical Institute imeni V. L. Komarov (Botanicheskiy institut imeni V. L. Komarova) the following dissertation for the degree of a Doctor of Biological Sciences was defended:
R. Ye. Levina - Method of Propagation for Fruits and Seeds (Sposoby rasprostraneniya plodov i semyan).
2) At the Zoological Institute (Zoologicheskiy institut) the following dissertations for the degree of a Candidate of Biological Sciences were defended:
Yu. S. Balashov - Nutrition Peculiarities of the Ixodic Mites (Osobennosti pitaniya iksodovykh

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kleshchey).

I. V. Stebayev - Fauna and Ecology of the Orthoptera Insects of the North-Western Prikaspiye (Fauna i ekologiya pryamokrylykh nasekomykh severo-zapadnogo Prikaspiya).

3) At the Institute for Biochemistry imeni A. N. Bakh (Institut biokhimii imeni A. N. Bakha) the following dissertations for the degree of a Candidate of Biological Sciences were defended:

I. N. Garkina - Methods of Distribution and Determination of Vitamin Substitutes (provitaminov) and of "D" Vitamin. (Metody raspredeleniya i opredeleniya provitaminov i vitaminov "D").

T. V. Drozdova - Phytin and its Transformations in Natural Processes (Fitin i yego prevrashcheniya v prirodnykh protsessakh).

B. F. Poglazov - Investigation of the Adenosin Triphosphatase of Muscels and of Some Plants.

(Izucheniye adenozintrifosfatazymyshts i nekotorykh rasteniy).

A. S. Spirin - Investigation of the Specifity of Species (spezifichnost') of Nucleinic Acids in Bacteria (Izucheniye vidovoy spezifichnosti nukleinovykh kislot u bakteriy).

4) At the Institute for Higher Nerve Function (Institut vysshey nervnoy deyatel'nosti) the following dissertations were defended:

a) for the degree of a Doctor of Medical Sciences:

N. G. Gartsshteyn - Investigation Test of the Nerve Mechanisms of a Depression of Reaction and Some Forms of Its Therapy (Opyt izucheniya nervnykh mekhanizmov reaktivnoy depressii i nekotorykh form yeye terapii).

N. I. Kozin - Injuries of the Higher and Vegetative Nerve Function in Children Caused by Scarlet Fever. (Narusheniya vysshey i vegetativnoy nervnoy deyatel'nosti pri skarlatine u detey).

b) for the degree of a Candidate of Biological Sciences:
O. N. Vasil'yeva - Correlations Between Unconditioned and Conditioned Motion Reflexes and Defence Reflexes in Overlapping (Vzaimootnosheniye mezhdu bezuslovnymi i uslovnymi dvigatel'nymi oboronitel'nymi refleksami pri perekrytii).

c) for the degree of a Candidate of Medical Sciences:
Ye. D. Markova - Peculiarities of the Injury of the Neurodynamics in an Amnesic Aphasia (Osobennosti narusheniya neyrodinamiki pri amnesticheskoy afazii).

5) At the Institute for Forestry (Institut lesa) the following dissertations were defended:

a) for the degree of a Doctor of Biological Sciences:
A. I. Zrazhevskiy - Earth Worms as a Fertility Factor of Forest Soils. (Dozhdevyye chervi kak faktor plodorodiya lesnykh pochv).

b) for the degree of a Doctor of Agricultural Sciences:
V. V. Popov - Scientific Principles of Growing Broad-

-Leaved Plantations in the Northern Variant of the Timbered Steppe. (Nauchnyye osnovy vyrashchivaniya shirokolistvennykh nasazhdeniy v severnom variante lesostepi).

c) for the degree of a Candidate of Biological Sciences:

V. M. Zubarev - Biological Reasons for the Possibility of Transplanting Oak-Trees to the Northern Districts of the European Part of the USSR. (Biologicheskoye obosnovaniye vozmozhnosti prodvizheniya duba chereshchatogo v severnyye rayony Yevropeyskoy chasti USSR).

M. V. Nadezhdina - Dynamics of the Covering of Terrains on the Slopes of Gorges in Connection With Soil Erosion and With the Grazing of Animals. (Dinamika rastitel'nogo pokrova na sklonakh balok i ovragov v svyazi s eroziyey pochv i vypasom zhivotnykh).

1. Biology--Bibliography 2. Bibliography--Biology

BALASHOV, Yu.S.

Feeding characteristics of ixodid ticks [with summary in English]. Paraz. sbor. 18:78-109 '58. (MIRA 12:3)

1.Zoologicheskiy institut AN SSSR.
(Ticks)

BALASHOV, Yu.S.

Excretory processes and the activity of Malpighian vessels in ixodid ticks [with summary in English]. Paras. sbor. 18:120-128 '58. (MIRA 12:3)

1.Zoologicheskiy institut AN SSSR.
(Ticks) (Malpighian vessels)